REMARKS

The Examiner's Action mailed on April 20, 2005, has been received and its contents carefully considered.

In this Amendment, Applicant has added claims 11-15, **which read upon the original elected species I**. Claim 1 is the independent claim, and claims 1, 4-9, and 11-15 are pending in the application. For at least the following reasons, it is submitted that this application is in condition for allowance.

The Examiner's Action has rejected claims 1 and 4-9 as being anticipated by *Doi et al.* (USP 6,187,648). It is submitted that these claims are *prima facie* patentably distinguishable over the cited reference for at least the following reasons.

It is well settled that a reference may anticipate a claim within the purview of 35 U.S.C. § 102 only if all the features and all the relationships recited in the claim are taught by the referenced structure either by clear disclosure or under the principle of inherency.

Applicant's independent claim 1 is directed to a method of fabricating a semi-conductor device which includes, *inter alia*, depositing a third insulating film into trenches. This operation is followed by a second oxide film forming step which includes supplying oxygen from an upper side of the third insulating film. This operation is then followed by a planarizing step which planarizes the third insulating film. This claimed method is not disclosed (nor suggested) by the cited reference.

Doi et al. is directed to a method of forming a device isolation region which includes performing a dry oxidation procedure on a surface of a trench groove to form a first oxide film 4. Thereafter, a second oxide film 5 is deposited to fill a trench, as shown in Figure 1C. Next, a thermal treatment is carried out for densifying the second oxide film 5. The thermal treatment is carried out under a nitrogen atmosphere (see column 3, lines 50-55). Thereafter, the second oxide film 5 is planarized, as shown in Figure 1D.

However, and in contrast to the present invention, this reference does not disclose supplying oxygen in a second oxide film forming step which is performed after depositing a third insulating film and before planarizing the third insulating film, as recited by claim 1. Instead, this reference only discloses a thermal treatment being carried out under a nitrogen atmosphere, which procedure is performed after depositing the second oxide film 5 (which the Examiner has equated to being a third insulating film) and before planarizing the film 5. However, since this thermal treatment is being performed under a nitrogen atmosphere, this thermal treatment can not be considered as being a second oxide film forming step which includes supplying oxygen, as recited by claim 1. Although, this reference does disclose performing a dry oxidation procedure, this dry oxidation procedure is being performed before applying the second oxide film 5, rather than after the oxide film is deposited, as would be required by Applicant's independent claim 1. As such, it is submitted that the Examiner's Action has failed to establish a *prima facie* case of anticipation against independent claim 1.

Thus, it is submitted that Applicant's independent claim 1, and the claims dependent therefrom, are *prima facie* patententably distinguishable over the cited reference. It is thus requested that these claims be allowed and that this rejection be withdrawn.

The Examiner's Action has also rejected claims 1 and 4-6 as being anticipated by *Ishitsuka et al.* (USP 6,242,323). It is submitted that these claims are *prima facie* patentably distinguishable over the cited reference for at least the following reasons.

Ishitsuka et al. disclose a semiconductor device which includes forming a groove 4a in a semiconductor substrate 1 using a silicon nitride film 3 as a mask. Thereafter, a silicon oxide film 7 is deposited over the semiconductor substrate 1 so that the silicon oxide film 7 fills the groove 4a. Thereafter, the semiconductor substrate 1 is wet oxidized to form the silicon oxide film 5.

Initially, it is noted that the Examiner's Action is combining features of the first disclosed Example of this reference with the features disclosed in the tenth Example of this reference. It is noted that these examples are directed to different embodiments, so the Examiner's Action is combining different embodiments in order to establish his anticipation-type rejection. However, the Examiner's attention is directed to the fact that such combining of features is impermissible in establishing an anticipation-type rejection, as presented in the current Action. Moreover, it is noted that the Example 10 specifically recites that the silicon nitride film 3 is used as a mask in forming the groove 4a (see column 29, lines 9-12).

However, Applicant's claim 1 recites that the mask is removed which is followed by depositing the third insulating film. This thus would require that the silicon nitride film 3 be removed prior to the formation of the silicon oxide film 7. However, there is no disclosure from this reference that the silicon nitride film 3 is removed prior to the formation of the silicon oxide film 7.

Furthermore, Applicant's claim 1 recites that oxygen is applied from an upper side of the third insulating film, so that an oxidative reaction starts at a cornered portion. The Examiner's Action states that these features are inherent from the cited reference. However, it is respectfully submitted that there is absolutely no disclosure, either explicit or inherent, that the wet oxidation of the semiconductor substrate 1 causes an oxidative reaction to start at the cornered portion of the trench 4a. Further, it is respectfully submitted that wet oxidation procedures do not constitute the supplying of oxygen as recited by claim 1, much less the supplying of oxygen from an upper side of an insulating film, as recited by claim 1. As such, it is submitted that the Examiner's Action has failed to establish a *prima facie* case of anticipation against claim 1, and it is thus requested that these claims be allowed and that these rejections be withdrawn.

The Examiner's Action has also rejected claims 7-9 as being obvious over *Ishitsuka et al.* in view of *Watanabe* (USP 6,417,073). Because *Watanabe* does not overcome the above-noted deficiencies of *Ishitsuka et al.*, and because claims 7-9 depend from independent claim 1, it is submitted that claims 7-9 are *prima facie* patentably distinguishable over the cited combination of references for at

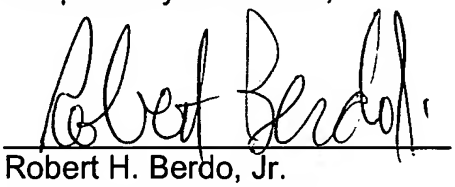
least the same reasons as independent claim 1, from which these claims depend, as well as for the additional features recited therein. It is requested that these claims be allowed and it is further requested that these rejections be withdrawn.

It is submitted that this application is in condition for allowance. Such action and the passing of this case to issue are requested.

Should the Examiner feel that a conference would help to expedite the prosecution of this application, the Examiner is hereby invited to contact the undersigned counsel to arrange for such an interview.

Should any fee be required, the Commissioner is hereby authorized to charge the fee to our Deposit Account No. 18-0002, and advise us accordingly.

Respectfully submitted,



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Date

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